- - 6. (Amended) The method according to [any one of claims 1, 2 or 3] claim 1, for k-th price auctions, where the output of F is (B.sub.j1, X.sub.j2), where X.sub.j1 is greater or equal to any X.sub.i for 1 <=i <=n, and X.sub.j2 is the k-th largest among all inputs X.sub.i for 1 <=i <=n.

- - 7. (Amended) The method according to [any one of the preceding claims] claim 1 wherein the auction is a plural auction where there are a plurality of sellers.

- - 8. (Amended) The method according to [any one of the preceding claims] claim 1 wherein the auction is a generalized Vickrey auction.

- - 9. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of, computing the auction such that the auctioneer wants to buy an item and each of the bidders wants to sell this item, and wherein negative values of the inputs X.sub.i are possible.

- - 10. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of; computing the output of the auction such that the users learn, in addition, some statistic of the inputs, such as, the users can learn at least one of the average of the inputs, the variance of the inputs, or how many one inputs were in a certain range.

- - 11. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of computing the output of the function such that only the center learns the output of the function. or several of the users learn the output of the function, or all the users learn the output of the function.

- - 12. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of, computing the output of a mechanism, in particular, for one of Groves-Clark mechanisms, opinion polling and stable matching.

- - 13. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the steps of each user committing to the values of his input in a manner that the user cannot change it afterwards, but hiding the input value from the center,[.]at a specific stage, the users opening their commitments to their inputs and revealing their values to the center, which then computes the value of F in a manner the each of the users can verify that the values that were used as inputs for computing F were the values that were committed to by the users.

- - 14. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of implementing automated agents which participate in the auction which do not disclose to the auctioneer the limit price that they were given, until the end of the bidding period.

- - 15. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of computing a function where the center can generate a proof that it computed the correct output of the function.

- - 16. (Amended) The method according to [any one of the preceding claims] claim 1, comprising the step of computing a function by N centers, such that only if K of the N centers collude they can learn information about the parties' inputs.